

**TO SYNONYMY OF *PHARAPHODIUS RUGOSOSTRATUS*
(WATERHOUSE, 1875) (COLEOPTERA: SCARABAEIDAE)**

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Summary. Data on distribution of *Pharaphodius rugosostriatus* (Waterhouse, 1875) are summarized. Examination of the type specimens of *Aphodius* (*Pseudacrossus*) *juxtus* Petrovitz, 1972, described from Korea and China, showed its conspecificity to *Pharaphodius rugosostriatus*. New synonymy is established: *Pharaphodius rugosostriatus* (Waterhouse, 1875) = *Aphodius juxtus* Petrovitz, 1972, **syn. n.**

Key words: Coleoptera, Scarabaeidae, Aphodiini, new synonymy, Russian Far East.

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Резюме. Обобщены данные по распространению *Pharaphodius rugosostriatus* (Waterhouse, 1875). Изучение типовых экземпляров описанного из Кореи и Китая *Aphodius* (*Pseudacrossus*) *juxtus* показало их конспецифичность с описанным из Японии *Pharaphodius rugosostriatus*. Устанавливается новая синонимия: *Pharaphodius rugosostriatus* (Waterhouse, 1875) = *Aphodius juxtus* Petrovitz, 1972, **syn. n.**

Description of *Aphodius* (*Pseudacrossus*) *juxtus* Petrovitz, 1972 was based on male holotype from Korea, and female paratype from China. Z. Stebnicka working with Rudolf Petrovitz's collection in the Muséum d'Histoire Naturelle de Genève signed a paratype of *Aphodius juxtus* (Fig. 7) as a synonym of *Pharaphodius rugosostriatus* (Waterhouse, 1875), but this information has not been published. The study of the photographs of type specimens of *Aphodius juxtus* showed that beetles have elytra with parallel, straight striae and interstices from to apex, without apical setae, first metatarsomere shorten than three next metatarsomere combine (Figs 1, 6), as a beetles *Pharaphodius rugosostriatus*; the male genitalia of *Aphodius juxtus* (Figs 2–4) are identical to those of *Pharaphodius rugosostriatus*. Thus, *Aphodius juxtus* is considered here junior synonym of *Pharaphodius rugosostriatus*.

TAXONOMY

***Pharaphodius rugosostriatus* (Waterhouse, 1875)**

Figs 1–7

Aphodius rugosostriatus Waterhouse, 1875: 92. Type locality: "Kobé" [Japan, Honshu].

Aphodius (Pharaphodius) rugosostriatus: Schmidt, 1913: 124; Schmidt, 1922: 59; Nakane, 1960: 24; Balthasar, 1964: 68; Stebnicka, 1980: 231; Frolov, 1995: 292; Dellacasa & Dellacasa, 2006: 135; Berlov & Shabalin, 2007: 15; Kim, 2012: 111; Akhmetova & Frolov, 2014: 427.

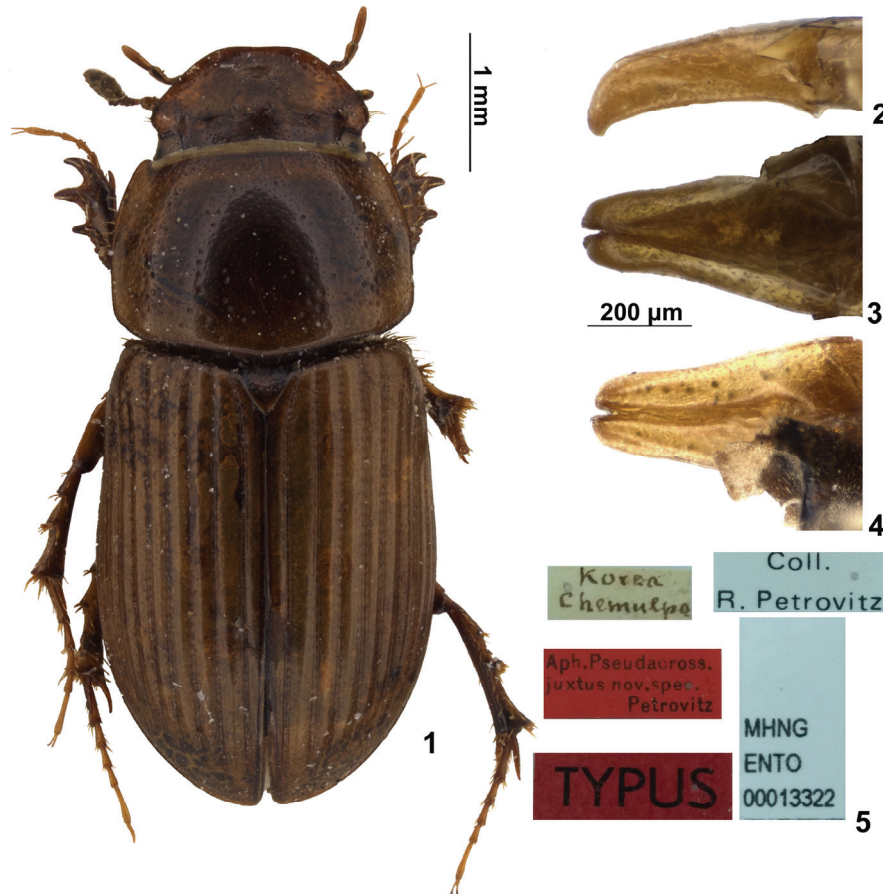
Aphodius (Acrossus) rugosostriatus: Reitter, 1892(1891): 247; d'Orbigny, 1896: 244.

Aphodius rugosostriatus: Miwa, 1930: 141.

Pharaphodius rugosostriatus: Dellacasa et al., 2016a: 11; Dellacasa et al., 2016b: 146.

Aphodius (Pharaphodius) raddei Berlov, 1989: 392. Type locality: Evseevka [Russia: Primorskii krai]. Synonymized by Stebnicka & Galante, 1991: 728.

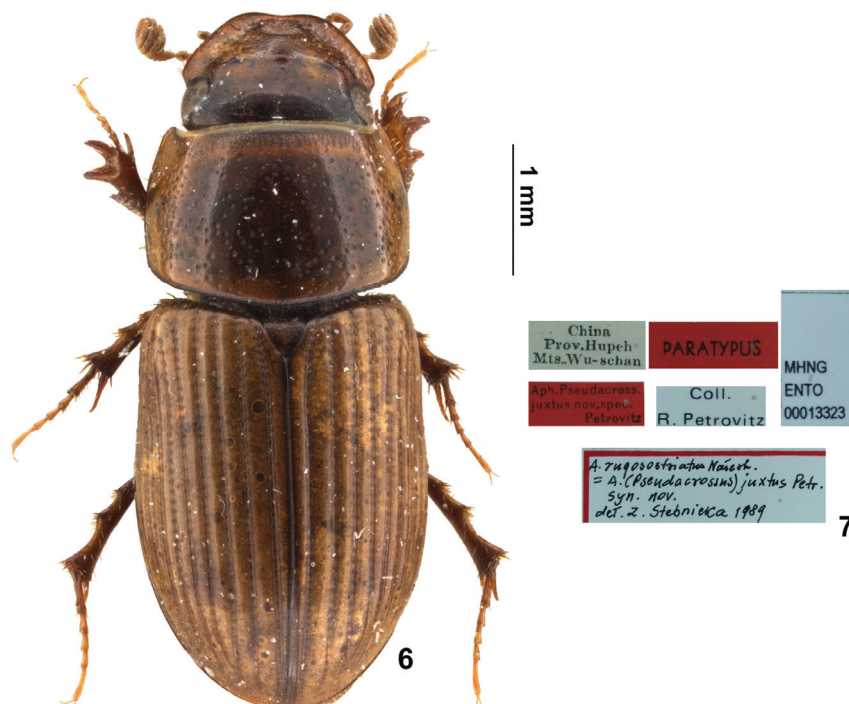
Aphodius (Pseudacrossus) juxtus Petrovitz, 1972: 163. Type locality: "Chemulpo" [South Korea, Incheon], **syn. n.**



Figs 1–5. Holotype male of *Aphodius juxtus*: 1 – body, dorsal view; 2–4 – parameres: 2 – lateral view, 3 – dorsal view, 4 – ventral view; 5 – labels.

Aphodius (Pseudacrossus) juxtus: Stebnicka, 1980: 205; Dellacasa & Dellacasa, 2006: 136; Kim, 2012: 124.
Pseudacrossus juxtus: Dellacasa et al., 2016a: 11; Dellacasa et al., 2016b: 149.

TYPE MATERIAL. **Holotype** of *Aphodius juxtus* – ♂ (Figs 1-5): "Korea / Chemulpo" [white, handwritten] // "Aph. Pseudacross. / juxtus nov. spec. / Petrovitz" [red, printed] // "TYPUS" [red, printed] // "Coll. / R. Petrovitz" [white, printed] // "MHNG / ENTO / 00013322" [white, printed]; **Paratype** of *Aphodius juxtus* – ♀ (Figs 6, 7): "China / Prov. Hupeh / Mts. Wu-schan" [white, printed] // "Aph. Pseudacross. / juxtus nov. spec. / Petrovitz" [red, printed] // "PARATYPUS" [red, printed] // "Coll. / R. Petrovitz" [white, printed] // "MHNG / ENTO / 00013323" [white, printed] // "A. rugosostriatus Waterh. / = A. (Pseudacrossus) juxtus Petr. / syn. nov. / det. Z. Stebnicka 1989" [white, handwritten]. Type material deposited in Muséum d'histoire naturelle de Genève.



Figs 6–7. Paratype female of *Aphodius juxtus*: 6 – body, dorsal view; 7 – labels.

OTHER MATERIAL EXAMINED. Totally 969 specimens from Russia: **Primorskii krai**: 16–19.VII 1968, 1 specimen, M.A. Kascheev; 67 km SW Vladivostok, Valley of Ryazanovka River, 7.VIII 2009, 1 specimen, on light, S. Shabalin; the same locality, 8.VIII 2009, 3 specimens, in the cow excrements, S. Shabalin; the same locality, 16.VIII 2009, 2 specimens, on light, S. Shabalin; the same locality, 27.VIII 2009 1 specimen, on light, S. Shabalin; the same locality, 29.IX 2017, 1 specimen, in the cow excrements, S. Shabalin; the

same locality, 3. X 2017, 1 specimen, in the cow excrements, S. Shabalin; the same locality, 8.X 2017, 1 specimen, in the cow excrements, S. Shabalin; the same locality, 15.VII 2018, 32 specimens, in the cow excrements, S. Shabalin; the same locality, 22.VII 2018, 248 specimens, in the cow excrements, S. Shabalin; the same locality, 2.VIII 2018, 33 specimens, in the cow excrements, S. Shabalin; the same locality, 17.VIII 2018, 4 specimens, in the cow excrements, S. Shabalin; 49 km N Vladivostok, Razdolnoye village, 29.VIII 2018 1 specimen, in the cow excrements, S. Shabalin; vicinity Ussuriisk, Utesnoe village, 21.VII 2018, 1 specimen, in the horse excrements, S. Shabalin; 20 km SE Ussuriisk, Dubovy Klyuch village, 5.VII 2018, 1 specimen, in the cow excrements, S. Shabalin; the same locality, 21.VII 2018, 37 specimens, in the cow excrements, S. Shabalin; the same locality, 1.VIII 2018, 87 specimens, in the cow excrements, S. Shabalin; the same locality, 13.VIII 2018, 1 specimen, in the cow excrements, S. Shabalin; 28 km SE Ussuriisk, Kaimanovka village, 5.VII 2018, 10 specimens, in the cow excrements, S. Shabalin; the same locality, 13.VII 2018, 16 specimens, in the cow excrements, S. Shabalin; the same locality, 21.VII 2018, 3 specimens, in the cow excrements, S. Shabalin; the same locality, 1. VIII 2018, 4 specimens, in the cow excrements, S. Shabalin; 16 km N Ussuriisk, Mikhailovka village, 21.VII 2018, 477 specimens, in the horse excrements, 94 km NE Ussuriisk, Knoring village, 17.VII 1981, 1 specimen, forest, on light, Kosheleva; **Khabarovskii krai**: 79 km SE Khabarovsk, Poletnoe village, on pastureland, 9.VII 1968, 2 specimens, Radomskaya.

DISTRIBUTION. Russia (Primorskii krai, Khabarovskii krai), North Korea (Pyengannam-do, Hwanghaebuk-do), South Korea (Gyeonggi-do, Chungcheongbuk-do, Gyeongsangbuk-do, Jeollabuk-do, Jeollanam-do, Jeju-do), China (Heilongjiang, Jilin, Liaoning, Inner Mongolia, Beijing, Tianjin, Hebei, Shandong, Shanxi, Ningxia, Gansu, Shaanxi, Henan, Jiangsu, Shanghai, Zhejiang, Anhui, Hubei, Sichuan, Taiwan, Fujian, Jiangxi, Hunan, Guizhou, Guangdong, Guangxi, Yunnan, Hainan), Japan (Hokkaido, Honshu, Sado, Shikoku, Kyushu).

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